Birds tough it out through the Yukon winter

Column 411
by Claire Eamer

When the temperature drops to -50°, as it has more than once this winter, most of us snuggle safely inside warm houses. Through insulating layers of glass, we watch hoar frost build on the trees and congratulate ourselves on the toughness of northerners.

Then something flutters among the spruce branches, a puff of dislodged frost drifts to the ground, and we realize the toughest northerners are still out there in the cold.

Common redpolls are frequent visitors to Yukon bird feeders during the cold winter months.

(photo: C. Eckert)

About 30 species of bird regularly overwinter in the Yukon, ranging from big, brawling ravens to tiny, elegant chickadees.

Perhaps the most surprising winter resident is the American dipper.

"The American dipper is an amazing bird, immersing itself in icy cold streams at any time of year," says Pam Sinclair, wildlife biologist with Environment Canada in Whitehorse.

"A thick layer of down, oily outer feathers, and small feet help it stay warm, but hearing this little bird sing its loud and exuberant song in the pitch black of a mid-winter Yukon afternoon, as it gulps down a morsel of food before plunging again into the frigid water, is more than a little awe-inspiring."

American dippers can often be found perched on the ice next to open stretches of the Yukon River within Whitehorse. They sing, Sinclair explains, to defend their patch of river or creek, along with all the food it contains, from rival dippers.

The American dipper's practice of defending territories in summer and winter is the exception in the bird world. Most other winter birds gather together in flocks, both for feeding and roosting.

Chickadees, pine grosbeaks, crossbills, and redpolls are territorial during the nesting season, but in winter they travel around in large flocks that sometimes contain a mix

of species.

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"Being in a group probably has the advantage that predators are spotted sooner with more eyes and ears," says Sinclair.

"In some cases, winter food sources are clumped -- for example, trees full of cones or berries," she adds. "Birds roam the landscape in groups looking for these relatively rare but rich feeding sites."

They need the food. Small birds generally have a body temperature a few degrees higher than humans and a metabolism that burns fuel very quickly to maintain that temperature. Birds like chickadees spend most of the winter day feeding, packing away enough fuel to keep their tiny bodies functioning through the night.

Chickadees, like some other birds, are able to reduce their body temperature while they sleep so that they don't have to use quite so much fuel to make it through winter nights. One study, in New York, found that chickadees can lower their body temperature, for hours at a time, by as much as 10 or 12 degrees below their normal body temperature of 42 degrees C.

The flock offers another way to help keep birds warmer through the night. They often roost together, sheltering in dense evergreens or small cavities where they are protected from the wind and their body heat is shared. Some small birds have even been seen to burrow into the insulating snow.

Birds that overwinter in the north generally have some physical adaptations that help them survive the cold.

"Many truly northern birds have small feet to avoid heat loss," says Sinclair. "This is noticeable in the crossbills, redpolls, grosbeaks, even the gray jay and common raven. When you compare them to migrants of similar size, such as a grosbeak and a robin, the ones that fly south for the winter have longer toes."

Some northern birds, like ptarmigan, even have feathers on their legs and feet.

Other major areas where birds lose heat, besides unfeathered legs and feet, are their beaks and the unfeathered areas around their eyes. To reduce the heat loss from those areas, many birds tuck their heads under their wings when sleeping.

"In extreme cold, birds will also bring one foot up into their belly feathers to warm it up, and then change feet, etc.," says Sinclair.

For more information about birds in winter, contact Pam Sinclair at Environment Canada in Whitehorse, (867) 667-3931.

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